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BRITISH MEDICAL ASSOCIATION

RURAL DISTRICT OF RUGBY.

ANNUAL REPORT

ON THE
HEALTH OF THE DISTRICT,
FOR THE YEAR 1913,

BY

CLAUDE E. TANGYE, B.A., M.D. Lond., D.P.H.,

MEDICAL OFFICER OF HEALTH

OF THE

Warwickshire Combined Districts.

Leamington :

A. TOMES, 43, 45 & 68, BEDFORD STREET.

1914.

17, LANSDOWNE CIRCUS,
LEAMINGTON,
April, 1914.

To the Rugby Rural District Council.

MR. CHAIRMAN AND GENTLEMEN,

I have the honour of presenting my Fifth Annual Report on the health of the Rural District of Rugby.

In the preparation of this Report I have endeavoured to follow the suggestions laid down in the Memorandum issued in December, 1913, by the Medical Officer of the Local Government Board, and would point out that much of the information which would appear to be unnecessary to those who are acquainted with the District is nevertheless particularly required by that Board.

I am, Gentlemen,

Your obedient Servant,

CLAUDE E. TANGYE,
Medical Officer of Health.



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Rugby Rural District.

Area, exclusive of water, 60,276 acres.

Inland water, 305 acres.

		Census, 1891.		Census, 1901.		Census, 1911
Population	...	13,775	...	15,214	...	17,353
Inhabited Houses	...	3,147	...	3,472	...	3,967
Average number of persons per house	...	4.3	...	4.3	...	4.4
Estimated Population (1913), 17,820.						

GENERAL CHARACTER OF THE DISTRICT.—With the exception of two cement works adjoining Rugby, and a celluloid factory at Wolston, the industry in the District is purely agricultural. A very large number of persons living in the District, not only at New Bilton, which is a suburb of Rugby, but also in many outlying villages, are employed at the various works at Rugby; whilst the works at Coventry and certain collieries to the north of the District give employment to many other residents.

SANITARY CIRCUMSTANCES OF THE DISTRICT.

Water Supply.—In addition to New Bilton, the following villages are supplied with water from the Rugby Water Works of the Urban District Council:—Newbold-on-Avon, Clifton (Vicarage Hill), Hillmorton, Brownsover, and Old Bilton.

The rest of the District is dependent on wells, chiefly of the usual shallow type. The village of Brandon has a service of mains and stand pipes in connection with a reservoir to which is pumped water from a comparatively deep well some distance from the village, the whole of the works being under private control.

The southern extremity of the District overlies the blue lias foundation, which yields no water except where limited limestone layers occur. The unsatisfactory supply at Sawbridge in this area, which is derived from pits, has been improved by the cleansing of the pits, as recommended in my previous reports. The supply for the village of Grandborough, also in this area, has been fully described in former Reports, and no progress has been made in connection therewith.

The Council has given instructions for the analysis of water supplies to elementary schools, and I hope that these will shortly be completed.

A number of samples of water from wells were submitted from Marton after the outbreak of diphtheria in that village, and the results were uniformly bad. As in many other villages the subsoil in the neighbourhood of cottage property is no doubt to a great extent polluted, and in some cases the river probably affects the wells through the stratum of gravel on which the village lies. Active steps have been taken to clean and protect the wells, but it will be contrary to general experience to expect a great deal of improvement in analytical results.

Details of the routine analysis of water and granting of certificates of occupation under the Public Health (Water) Act will be found in the Inspector's Report.

Fifty-one of the 55 certificates were granted in respect to the public water supply from the Urban District's Waterworks. Two were granted in respect to the public well at Clifton, and one each to private wells at Bilton and Willoughby respectively.

Drainage and Sewerage.—In my last Annual Report I gave some details of the various sewage disposal systems of the villages in the District.

As the result of an adverse report from the County Council on the Bilton outfall works the District Council have decided to improve this outfall by the installation of an additional filter and tanks, at a cost of £560, and the scheme has been the subject of a Local Government Board Inquiry since the close of the year.

The Sewerage Committee have had under consideration alternative schemes for the village of Newbold-on-Avon. The levels of this village render the problem a somewhat difficult one, but there is no question, as has been regularly pointed out in my Annual Reports, that the village is urgently in need of proper sewerage. The County Medical Officer of Health visited the village on September 22nd, and gave his advice on certain alternative schemes.

As the result of reports from the Sanitary Inspector and myself as to existing nuisances, the Council have extended one of the sewers at Marton, and have re-laid the main sewer at Willoughby.

A small sewage disposal works with tank and area for broad irrigation has been laid out at Brownsover for dealing with sewage from the new building estate.

The steps taken to prevent nuisance from the outfall at Birdingbury, mentioned in my last Report, have not proved successful, and on 8th December I reported to the Council as follows :—

“At your Meeting on 24th July, 1911, I reported upon the unsatisfactory method of sewage disposal for the village of Birdingbury. At your Meeting on 22nd July, 1912, it was decided to try the effect of certain minor alterations to the tank, and I was requested to report again after an interval as to the adequacy of these steps.

“Since that date I have continued to receive complaints as to nuisance from this source, and regret to have to bring the matter again to your notice, as I do not regard

the present means of disposal as by any means free from nuisance to the adjacent cottages. I gather that various inhabitants of the village are unsatisfied with the present condition, and would suggest that the Council should again take the matter into consideration."

This matter is again receiving the attention of the Sewerage Committee.

Nineteen villages in the District have no means of land or other treatment for their sewage, which for the most part passes into ditches and causes no particular nuisance or river pollution. The village of Clifton, however, must be regarded from a special standpoint with reference to river pollution, since the river Avon is impounded a little more than a mile below for the purpose of water supply at the Urban District Council's Water-works. It is highly desirable that the river above the Works should receive as little pollution as possible, and the Rural District Council should consider steps to protect the river in its course through their area above Rugby. There can be no doubt that an efficient disposal scheme is essential in this connection for the village of Clifton, and this is now being considered by the Sewerage Committee.

The question of preserving the purity of the river at this point is a vital one not only for the Urban District, but also for the Rural District, since more than a third of the total population of the latter District lives in the parts supplied with water from the Urban Water-works, namely New and Old Bilton, Newbold, Clifton, Hillmorton, and Brownsover.

Closet Accommodation.—A general description under this heading was given in my last Annual Report. During the past year in 77 instances conversions were made into pail or water closets, and 23 new sanitary conveniences, including water-closets, were constructed in connection with existing

property. Wherever the presence of sewer and water supply have rendered it possible, the Inspector has endeavoured to obtain the installation of water-closets.

Scavenging.—Public scavenging of house refuse is in operation at New Bilton, and of house refuse and night-soil at Newbold, Clifton, Hillmorton, and Long Lawford. The schemes for the last four villages were initiated during the year, and the general condition of cleanliness has already much improved in consequence.

As a result of my report on the sanitation of the village of Dunchurch in connection with the recent outbreak of diphtheria in that village which is quoted later, the Council considered the desirability of scavenging that village also, and have since decided upon this course.

There can be no doubt of the advantage of such arrangements, especially in the more thickly populated villages, and I hope that the method will extend eventually to include all such villages within the District.

SANITARY INSPECTIONS OF THE DISTRICT.—The Table appended to the Sanitary Inspector's report gives a summary of his inspections, and in his Report will be found full details on this matter, as well as on the premises controlled by Byelaws.

SCHOOLS.—The Elementary Schools of the District have been inspected as occasion arose.

After the diphtheria epidemic at Dunchurch, the whole of the drainage of the Boys' School, with adjoining schoolmaster's house, was relaid and water-closets installed. The Girls' School was also partially re-drained, and both Schools thoroughly cleansed and re-colour washed. The old well used by the school children having been condemned, another

existing well in a more satisfactory situation has been requisitioned as a drinking supply for the school, and has been thoroughly overhauled for this purpose.

After the diphtheria epidemic at Marton the School and schoolmaster's house were re-drained, the sanitary accommodation improved, and the school well, which was condemned, thoroughly cleansed and protected. The school was also cleansed and painted.

FOOD.—The milk supply from the 64 dairy farms of the District is partly consumed therein and partly sent to Rugby, London, and Coventry. The general condition of the premises occupied by the 91 registered persons has received comment in previous annual reports. Four dairy farms were disused as such during the year.

Details as to Cow-sheds, as well as with regard to the 21 Bakehouses and 14 Slaughter-houses in use, will be found in the Inspector's Report appended, wherein is also given a list of carcasses and parts of carcasses condemned as unfit for food, none of which were affected with tuberculosis. No formal action under Section 117 of the Public Health Act, 1875, was needed during the year, all the unsound meat having been voluntarily surrendered.

All these sources of food supply have received constant inspection, and as far as possible the various slaughter-houses have been visited at times of slaughter.

The Sale of Food and Drugs Acts are administered in the District by the officers of the County Council, but the Sanitary Inspector has instructions to take samples independently, and his Report shows the work done by him in this department.

HOUSING.

HOUSING (INSPECTION OF DISTRICT) REGULATIONS 1910.

Number of Houses Inspected for purposes of Sec. 17 of Act 1909.	Number of Houses found unfit for Habitation.	Number of Representations made to the Local Authority with a view to the making of Closing Orders.	Number of Closing Orders made.	Number of Dwelling Houses the defects in which were remedied without the making of Closing Orders.	Number of Dwelling Houses which after the making of Closing Orders were put into a fit state for human habitation.
1911 105	2	2	Nil	53	Nil
1912 118	7	7	7	63	1
1913 163	5	5	5	144	Nil

The 163 houses inspected under the Housing (Inspection of District) Regulations during the year were distributed thus in twenty-two of the thirty-one parishes of the District, namely :—

Hillmorton	...	...	...	11 houses.
New Bilton	...	...	...	32 „
Newbold-on-Avon	...	...	...	6 „
Bretford	...	...	...	1 „
Flecknoe	...	...	...	2 „
Brandon	...	...	...	10 „
Thurlaston	...	...	...	7 „
Marton ...	...	...	...	4 „
Frankton	...	...	...	1 „
Church Lawford	...	...	...	5 „
Clifton-on-Dunsmore	...	...	...	1 „
Stretton-on-Dunsmore	...	...	...	4 „
Ryton-on-Dunsmore	...	...	...	12 „
Willoughby	...	...	...	8 „
Newton	...	...	...	10 „
Wolston	...	...	...	10 „
Brownsover	...	...	...	12 „
Hill	...	...	...	3 „

Coombe Fields	...	...	2 houses.
Harboro Magna	...	...	9 „
Churchover	...	...	10 „
Long Lawford	...	...	3 „
			—
			163 houses.
			—

Five houses in the village of Newbold were found unfit for habitation, and after the necessary representations had been made they were formally closed by the Council and subsequently demolished. In addition, the house at Long Lawford, mentioned as closed in my last Annual Report, was demolished.

Two dilapidated houses at Newton were voluntarily closed by the owner after inspection. Of the 163 houses inspected during the year, 107 have been repaired. The 51 in which no repairs had been begun at the end of the year after inspection in 1913, are distributed as follows :—

Thurlaston	...	...	...	...	2
Ryton	...	...	...	...	10
Newton	...	...	...	...	6*
Brandon	...	...	...	...	5
Brownsover	...	...	...	...	3
Harborough Magna	...	...	...	...	6
Churchover	...	...	...	...	3
Hillmorton	...	...	...	...	3
New Bilton	...	...	...	...	13
					—
					51
					—

*Two voluntarily closed.

Eleven of the 48 houses outstanding at the end of 1912 have not yet been repaired. Two of these are at Sawbridge, and 9 at Harborough Magna. With reference to certain of the last I met the owner with the Inspector on the spot, and

explained precisely the requirements of the Council. It has not yet been decided to undertake the repairs, and the houses remain vacant.

The total number of houses repaired during the year was thus 144, namely 107 of those inspected in 1913, and 37 of those remaining over from the previous year.

The reports on all houses inspected are presented to a Housing Committee which meets every month, and the repairs obtained have been in the large majority of cases carried out on informal notice.

The defects found in property inspected were of the same type as in other rural districts in the County, and included defective walls, floors, roofs, plaster, external paving, spouting, wash-house and sanitary accommodation, water supply, and general dilapidations. Bedroom ventilation has been very commonly found defective, and in connection with housing work many improvements in drainage have been effected.

With regard to overcrowding in the District I made the following report on 10th November :—

“I beg to bring before your notice a very serious aspect of the housing question in the District apart from the dilapidated condition of various property which is constantly receiving the attention of the Housing Committee. I refer to over-crowding, which, as far as constant inspection has revealed, is more prevalent and serious in this District than in any part of the rest of the half of the County for which I am District Medical Officer of Health.

“Owing to the scarcity of houses over-crowding is the nuisance above all others most difficult to discover, and most successfully hidden. At the same time a long series of cases have been brought before your notice both in my annual reports and otherwise. In some instances abatement has been obtained, though it is to be feared that such abatement is in many cases not likely to be permanent. It will be remembered that at your meeting on the 6th January last the Council declined to enforce

the common lodging-house standard in certain serious cases which were reported. This standard is universally adopted by Sanitary Authorities as the minimum amount of bedroom cubic feet compatible with healthy conditions, and provides for 300 cubic feet for each adult, and 150 for each child under ten.

“Since the beginning of the year the following cases have been investigated by your officers :—

“(1) At Brinklow, cottage with one bedroom occupied by man and wife with seven children. Bedroom 1,580 cubic feet.

“(2) At Brinklow, cottage with two bedrooms occupied by man and wife with ten children. Bedrooms 978 cubic feet and 723 cubic feet.

“(3) At Long Lawford, cottage with one bedroom occupied by man and wife with six children. Bedroom 1,216 cubic feet (partitioned).

“(4) At Dunchurch, cottage with two bedrooms occupied by man and wife with ten children. Bedrooms 1,562 and 856 cubic feet.

“(5) At New Bilton, cottage with two bedrooms, occupied by man and wife and seven children. Bedrooms 1,106 and 839 cubic feet.

“(6) At New Bilton, man and wife with five children lodging in two rooms of which one only is used as a bedroom. Bedroom 1,007 cubic feet.

“The above no doubt only represent a proportion of the serious cases of overcrowding in the District, and the most unsatisfactory feature is that permanent improvement cannot be insured by your officers under present conditions, although in certain cases the want of bedroom air space is obviously undermining the health of the children.”

The subsequent history of the various cases was in No. (1) the family left the District ; in No. (2) the Council declined to interfere ; in No. (3) the family obtained another house ; in No. (4) the family also obtained another house ; in No. (5) the same conditions remained ; and in No. (6) the whole of the family of lodgers went into the Workhouse.

Two further cases were discovered later in the year at New Bilton, but in these the overcrowding element was less conspicuous than the intermixing of families and sexes.

The extent to which new houses have come into occupation during the year is accurately ascertained from the number of occupation certificates under the Public Health (Water) Act issued during the year, which was 55, distributed as follows :—

Hillmorton Paddox	...	...	21
Bilton	...	...	14
Brownsover	...	...	8
New Bilton	...	...	9
Clifton	...	...	2
Willoughby	...	...	1
			<hr/>
			55

About half of these 55 new houses are let at approximately 5s. 6d. a week, and the others range up to 10s. or 12s.

The Surveyor gives me the following list of houses erected during the year, but this naturally does not correspond with the above, since certain houses erected in 1912 came into occupation in 1913, whilst a number of houses erected in 1913 were not occupied until after the close of the year :—

“ HOUSES ERECTED.

Bilton	...	...	...	11
Ryton	...	...	...	1
Hillmorton	...	...	...	20
Brownsover	...	...	...	20
Dunchurch	...	...	...	2
Stretton	...	...	...	1
Clifton	...	...	...	2
Bretford	...	...	...	1
Lawford	...	...	...	2
Willoughby	...	...	...	2
Harborough	...	...	...	1*
				<hr/>

63 houses.

* Nurses' Home at Hospital.

“ Building Estate, Brownsover Parish, with six streets, plan approved, one street has been constructed.”

With regard to the need for housing accommodation in the District it may be again stated, as in previous Annual Reports, that this arises to a great extent from the proximity of large engineering works at Rugby, and to a less extent at Coventry. At the same time in the strictly rural parts there is a certain demand for houses for the purely rural population, although even this is determined to some extent by the invasion of the workers from the towns.

The closures made during the year had practically no effect in increasing the scarcity of houses, since only two of the five houses closed were occupied at the time, one by one adult and two children, and the other by one adult.

At the request of the Housing Committee the Inspector has drawn up a list of the houses it would be desirable for the Council to erect to meet the demand, and with this statement I agree as a result of very frequent inspections in the District, although of course a much larger number of houses would readily find tenants. This list of suggested new houses is as follows :—

Hillmorton	...	...	...	...	4
Bilton—					
New Bilton	...	...	...	...	7
Old Bilton	...	...	...	...	3
Newbold	...	...	...	...	4
Brinklow	...	...	...	...	5
Clifton	...	...	...	...	2
Wolston	...	...	...	...	6
Ryton	...	...	...	...	4
Stretton	...	...	...	...	3
Thurlaston	...	...	...	...	4
Willoughby	...	...	...	...	2
Harborough Magna	...	...	...	...	3
Long Lawford	...	...	...	...	3

This list has received favourable consideration from the Housing Committee, and I hope that it will form the basis of action during the present year.

SANITARY ADMINISTRATION OF THE DISTRICT.

Staff.—This consists of Surveyor and Sanitary Inspector, the latter official devoting the whole of his time to the work of this District and that of the neighbouring Rural District of Crick. The supervision of the various sewage disposal areas and over the construction of new buildings is in the department of the Surveyor.

The Sanitary Inspector administers the Canal Boats Act, the Petroleum Acts, and, in addition to the County Staff, the Food and Drugs Acts. He also superintends the work of scavenging in the various parishes mentioned, and is the officer designated for the purpose of the Housing (Inspection of District) Regulations.

During the year the Council made an increase in the Inspector's salary to help towards the upkeep of his motor cycle, which he has provided for himself for the more efficient discharge of his duties, and which has now become almost essential to him.

Hospital Accommodation.—Sixteen beds, in four wards, are provided at the Harborough Magna Isolation Hospital, which serves the Urban District of Rugby, and the Rural Districts of Rugby, Monks Kirby, and Crick. The staff-accommodation is in process of being enlarged.

During the year fifty-three patients were removed to this Institution from the Rugby Rural District in my authority, and in my opinion not one of those cases could properly have been treated at home.

The Small-pox Hospital of sixteen beds, which is situated at Lawford Heath in this District, serves the same combination of Districts, and is under the control of the same Board.

No steam-disinfector is available for the District, but it is hoped that arrangements will be made for the use of the one to be provided by the Urban District Council during the present year.

PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASE.

One hundred and forty-nine cases of infectious disease, exclusive of Phthisis, were notified during the year, comparing with 58 in 1912, and 133 in 1911. Table II. gives the statistical details and areas of occurrence.

Diphtheria.—During the past year the District has experienced two serious outbreaks of diphtheria, and a number of scattered occurrences of the same disease, amounting in all to 56 cases. This disease has been comparatively rare for some years, as will be seen from the following table :—

1907	...	...	...	5 cases.
1908	...	...	...	7 „
1909	...	...	...	18 „
1910	...	...	...	16 „
1911	...	...	...	9 „
1912	...	...	...	4 „

The first outbreak of the year is described in the following report to the Council of February 17th :—

“I have to report a serious outbreak of diphtheria at New Bilton, at present limited to one family.

“A boy, aged 6, of New Bilton, died suddenly on December 30th. No doctor was in attendance at the time, and the death was returned as uncertified, the cause being given as ‘Heart Disease.’

“On February 6th another child, aged 3, who had been ill since December, died at the same house. This death was certified as due to ‘Diphtheria one month, Cardiac Failure,’ but the case had never been notified as one of diphtheria.

“On February 7th another child of the same family, aged 10, was excluded from school by the School Medical Officer on account of certain suspicious throat symptoms.

“On February 12th I visited the house and took bacteriological specimens from all the children in the house. All these specimens have been reported by Birmingham University as showing the diphtheria organism.

“These children may not themselves develop diphtheria, but they are in my opinion dangerous to others.

“I would suggest that all three children be removed to Harborough Magna Hospital for thorough treatment in order to get rid of the infection which they are carrying.

“This course appears all the more advisable since the family are not living in their own house, and the father is an invalid.”

The Council adopted the suggestion of sending these children to Hospital, as they were undoubtedly infectious, although they were not suffering themselves from the usual manifestations of the disease and were not notified as such. It was, however, found impracticable to remove the youngest child, and proper treatment was eventually obtained for it at home.

The second outbreak occurred a little later at Brandon, and was curious from the fact that though only one child contracted the disease in an acute form a large proportion of the children at the village school were found to harbour the infection. I reported as follows on this outbreak on March 3rd :—

“A case of diphtheria was notified at Brandon on February 14th and removed to Harborough Magna Isolation Hospital on the 15th. This case, which terminated fatally on the 16th, was a child attending Brandon School.

“I visited on several occasions, and found several children attending school whose throats showed the diphtheria organism.

“These children were excluded in the usual way from school attendance, and also, upon my advice, a nurse has been engaged to treat these children at their homes and others who are still attending school, in order to stamp out the infection as completely as possible, under the supervision of the local doctor.

“No further case has up to the present occurred.”

The next village to be affected was Marton, and the following report of April 28th describes this outbreak. In this outbreak a striking feature was the absence of infection, as far as my observations went, in any children besides those who showed clinical signs of the disease and were consequently notified as cases :—

“I beg to report upon the recent outbreak of diphtheria at Marton village.

“Altogether ten children have been notified as suffering from this disease. All attended Marton School, or were members of a family from which children attended the school, and all but two live in the village itself, these two living respectively at Sinclair’s Barn and near Frankton.

“Eight families were affected, two cases being notified from each of two families.

“The first case was notified on the 5th instant and the last on the 15th, and in no instance was it possible in my opinion to secure adequate and safe isolation. I therefore authorised the removal of each of the patients to the Harborough Magna Isolation Hospital.

“I examined and took bacteriological specimens from a large number of children who had come into contact with the patients, but in no instance was found a single child who showed traces of infection, but was not actually suffering from the disease. In this respect the outbreak contrasted greatly with that at Brandon, where a large number of children were found to have the diphtheria infection besides the patient who was notified as a case.

“All the patients are progressing favourably, and I hope that the outbreak is now at an end.

“The school has been closed and thoroughly disinfected. The school drainage system has been found very imperfect, and the Managers’ attention has been called thereto. It will not be possible to re-open the schools until the necessary work has been carried out.

“The village has been kept under constant inspection and observation by the Sanitary Inspector and myself, and we have received the greatest assistance from the local medical practitioner.”

The last and most wide-spread epidemic during the year occurred at Dunchurch, and I reported as follows upon this on November 10th :—

“I beg to report on the outbreak of diphtheria at Dunchurch which I mentioned at the last Council Meeting as probably at its commencement. The first case was notified on 8th October, and the last on the 5th instant, since when no fresh cases appear to be developing. Altogether twenty-five cases have been notified at Dunchurch and Thurlaston, of which the majority have been amongst children attending the Dunchurch Schools, but five cases have been in adults. These twenty-five cases have occurred in twenty-one different families. One case has proved fatal, and some have been very severe, but the majority of the patients are now convalescent.

“In addition to the notified cases a number of children have been found on bacteriological examination to have the diphtheria infection in throat or nose without themselves being ill.

“The following steps have been taken to deal with this epidemic :—

“Both schools have been closed and thoroughly disinfected. All articles at the school likely to retain infection which could not be properly disinfected have been burned with the permission of the Education Authority.

“Ten patients who could not be properly isolated at home have been removed to the Isolation Hospital, and the infected houses disinfected.

“As authorised at the last meeting of the Council I have obtained a trained fever nurse to treat at their homes all cases not removed to hospital, all other children in such homes, and all children who have been found to

have the slightest infection. The nurse began work on 16th October. By constantly visiting in the village the nurse has been able to discover cases in their earliest stages which might not otherwise have been treated until too late.

“Dr. Powell has used the anti-toxin supplied by this Council in such cases as have required it, and has otherwise rendered valuable assistance.

“I have made free use of the arrangement for bacteriological examination at the expense of the County Council, and no child will be allowed to return to school when it opens who is now under the slightest suspicion until he is reported free from the infection of diphtheria by Birmingham University.

“I have investigated with the Sanitary Inspector a number of nuisances in the village, and although there is no reason to suppose that any one of these was the direct cause of the epidemic, it is not unlikely that some of them have pre-disposed to the spread of the disease when once the diphtheria infection had been introduced. The following have been found to be the source of nuisances :—

“The inefficient removal of night-soil and refuse from cottage property. Such removals are for the most part only made annually, and large accumulations were found close to wells in back-yards. I would strongly advocate the adoption of a scavenging scheme for the village on the same lines as those in successful operation elsewhere in the District. Public scavenging would admit of the conversion of the present insanitary middens into pail-closets, and the provision of moveable ash-bins, both of which I consider essential to the health of the village.

“The present tip immediately opposite the cottages on Daventry Road has undoubtedly been used for the disposal of offensive material. Such use should be discontinued, and the present collections of garbage removed or buried.

“The open sewer on Daventry Road has been the subject of as many complaints as the tip already mentioned, and should be piped in for a distance from the village.

“The sewers of the village should be regularly flushed during dry weather, and the sewer at Gaol End, concerning which we continue to receive complaints, should have been properly ventilated as already decided by this Council.

“The sewage from the Lodge on Mr. Lancaster’s estate, where the first recognised case of diphtheria occurred, has been improperly disposed of, and the drains of both Lodges should be connected with the sewer or some other adequate arrangement made.

“The drainage and water supply of the schools have been found to be unsatisfactory, and steps are to be taken to remedy these.

“As required by their Order, I have reported fully to the Local Government Board on the outbreak, and would add that the Isolation Hospital has been invaluable for the removal of such patients as could not possibly have been safely treated at home.”

Only one further case was notified in this epidemic, and the infection rapidly died out. The Council decided to obtain a new tip and to adopt public scavenging. The sanitation of both schools was thoroughly overhauled as already mentioned.

As will be seen from Table II. single cases and small groups of cases have occurred in a number of villages, and I have endeavoured as far as possible to trace infectious contacts in connection therewith, in order that precautionary measures should be exercised not only as regards the actual cases, but also in connection with other children who, though not suffering from the disease themselves, might transmit it to others.

Although a number of the fifty-six cases of diphtheria were severe, only four proved fatal, namely one notified from Brandon, one from New Bilton, one from Hillmorton, and one from Dunchurch.

The free supply of anti-toxin provided by the Council for use amongst the poorer patients was extensively used, and twenty-seven diphtheria patients were removed for treatment to the Harborough Magna Isolation Hospital.

Scarlet Fever.—With the exception of more or less scattered cases, especially at New Bilton and Newbold, the District was fairly free from scarlet fever until October, when cases began to occur at Long Lawford. Twenty-two were altogether notified from this village, necessitating a long closure of the village schools. This outbreak was complicated by the occurrence at the same time of numerous cases of “rose rash,” and it is probable that some mild scarlet fever cases were regarded as this disease and consequently escaped precautionary measures and prolonged the outbreak.

In November the village of Willoughby began to be affected, eighteen cases in all eventually being notified. The number of families affected was not large, but here again it was not possible to avoid school closure.

In none of the cases of scarlet fever was it possible to trace the cause to milk supply, and probably the infection was purely personal.

None of the cases proved fatal. Twenty-six in all were removed to Harborough Magna Isolation Hospital.

Enteric Fever.—Four cases were notified during the year, three at New Bilton, and one at Newbold. One of the former proved fatal at the Hospital of St. Cross, to which the patient was removed for treatment. No cases of this disease were removed to the Harborough Magna Isolation Hospital. In none of the cases was it possible to trace a definite source of infection.

Puerperal Fever.—A case of this disease occurred at Church Lawford in March, and was notified from the Hospital of St.

Cross, where the patient was admitted for treatment and subsequently died. This case was not attended by a registered midwife.

Erysipelas.—Eight cases of the usual mild type were notified from various places.

The following Table shows the extent to which the County scheme has been utilised for the free bacteriological examinations by the Birmingham University :—

	Positive.		Negative.		Total.
Diphtheria	92	...	157	...	249
Enteric Fever	1	...	2	...	3
Phthisis	9	...	15	...	24
					<hr/> 276

The leaflets for distribution amongst patients with reference to precautions in cases of notifiable infectious disease have been re-drafted on modern lines.

Non-notifiable Infectious Disease.—The epidemic of measles which affected the District so severely towards the close of 1912 continued to some extent into the past year. The villages of Ryton, Marton, and Princethorpe were invaded in turn during the first few months of the year. In the first quarter three deaths were due to this disease at New Bilton, and one each at Hillmorton, Princethorpe, and Marton. Towards the end of the year, a limited outbreak occurred at Clifton, one of the cases proving fatal.

German measles appeared at New Bilton in February, chicken-pox at Newbold in June, and whooping cough at Stretton in September, and at Brinklow in October. Two of the cases in the latter village ended fatally.

The following is a list of Elementary Schools closed in the District during the year on account of infectious disease :—

Ryton, measles, Xmas holidays to Jan. 27.

Marton, measles, Jan. 20 to Mar. 3.

New Bilton Council Infants', German measles, Feb. 17 to Mar. 3.

Brandon, diphtheria, Mar. 6 and 7.

Princethorpe, measles, Mar. 10 to April 14.

Marton, diphtheria, April 10 to May 20.

Newbold Infants', scarlet fever and chicken-pox, June 30 to summer holidays.

Clifton, mumps, July 7 to summer holidays.

Stretton-on-Dunsmore, whooping cough, Sept. 8 to Sept. 22.

Brinklow, whooping cough, Oct. 7 to Dec. 1.

Dunchurch Boys', diphtheria, Oct. 16 to Dec. 1.

Dunchurch Girls', diphtheria, Oct. 16 to Dec. 1.

Long Lawford Mixed and Infants', scarlet fever, Oct. 24 to Jan. 5.

Newbold, scarlet fever, Oct. 27 to Nov. 17.

Willoughby, scarlet fever, Nov. 11 to Jan. 5.

All these closures were advised by myself either after consultation with the School Medical Officer for the County, or as the result of previous agreement with him as to the course of action ; all certificates being countersigned by him.

The school teachers of the District carefully follow the rules laid down by the County Council with regard to exclusion of members of infected families from school, which rules are based upon the Local Government Board's Memorandum of 1909. Notifications of all infectious disease occurring amongst school children are duly forwarded from the schools to myself.

PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

During the year forty-four new cases of tuberculosis have been notified, 35 being of cases of phthisis, and 9 of other tuberculous diseases. During the previous year 32 cases of phthisis were notified.

Thirteen deaths were certified as due to phthisis, and 7 to other tuberculous diseases, comparing with 11 and 3 in 1912, and 16 and 5 in 1911.

By an arrangement with the County Medical Officer of Health I have supplied him every week with lists of new cases of phthisis notified, and the County Health Visitor has visited and given advice where such appeared necessary. Through this arrangement I have from time to time received valuable information as to defective conditions discovered in the patients' homes, and steps have been taken to remedy these.

Disinfectants and sputum bottles are supplied free through the Sanitary Inspector for cases where they are desirable. After deaths from phthisis and after removals of phthisical patients when the circumstances require it, disinfection is carried out by the Inspector.

The Council have purchased several shelters for the purpose of loaning to the County Insurance Committee, and wherever required by that Committee they have been used as an accessory in domiciliary benefit.

INFANT MORTALITY.

Fifty-three deaths of infants were registered during the year, giving the infant mortality rate of 105 per thousand births. As will be seen from Table I. this rate is much in excess of the average for the previous five years, and is disappointing in view of the large amount of work directed against infant mortality in the District.

Table IV. sets forth the various causes of infant deaths. The epidemics of measles and whooping cough accounted altogether for four deaths, whilst infantile diarrhoea and enteritis were responsible for the comparatively small number of six. Bronchitis and pneumonia caused altogether six

deaths, and tuberculous meningitis three. Almost half the deaths, however, amounting to 23, were due to less easily prevented congenital causes of which premature birth was the greatest single factor.

Under the Notification of Births Act, 445 births have been notified by doctor, nurse, or relative, out of the 498 which were registered in the District during the year.

Weekly lists of births have been regularly forwarded by me to the County officials, and a large number of infants have been visited by the County Health Visitor. My connection with the working of the Act, however, is limited at the present time to the routine of receiving and transmitting notifications of birth, and also endeavouring to trace such births as have not been notified, with a view to securing more general observance of the Act. I am, therefore, not able to incorporate under this heading reports of Health Visitors as suggested by the Local Government Board.

VITAL STATISTICS.

Tables I. and III. are self explanatory, and need very little comment.

The general net death-rate was 14.0 per thousand, the net number of deaths for the year being 250. This rate is slightly higher than that of any of the previous five years, and considerably higher than the average for the past five years.

The Registrar-General has supplied a factor for the correction in this District of the death-rate just given. The age and sex distribution of any community naturally differs from that of England and Wales generally, and also from that of any other community. Therefore the death-rate of one District must be corrected before it can be compared with that of England and Wales generally or with that of any other District.

On applying this factor the death-rate for the Rugby Rural District for the past year becomes 12.8 per thousand, and this is known as the "Standardised Death-rate."

The main features of Table III. have already been mentioned. Pneumonia and bronchitis accounted for the heavy death-roll of 37, cancer for 21, heart disease for 27, and accidental deaths numbered 10. A large proportion of the 41 deaths over 65 years of age under "other defined diseases" were certified to be due to old age.

The net number of births belonging to the District was 503, giving the satisfactory birth-rate of 28.2 per thousand of the population. This rate is very much higher than the average for the previous five years.

I append the Annual Report of the Sanitary Inspector :—

REPORT OF SANITARY INSPECTOR.

TO THE RUGBY RURAL DISTRICT COUNCIL.

GENTLEMEN,

I have the honour to present for your consideration my report, with summary, showing the amount of work done during the year 1913.

INSPECTION OF DISTRICT.

As in previous years, periodical and systematic inspections have been made in various parts of the District, in accordance with the Acts, Orders, Regulations and Bye-laws in force in the District.

The following summary will give the numbers of the principal works which have been carried out :—21 choked drains freed ; 36 new drains partly or entirely relaid, trapped, etc. ; 77 privy middens converted into pail or water closets ; 23 new privies or water closets provided ; 11 new privy pails provided ; 46 receptacles for ashes provided ; 27 privies and ashpits emptied and cleansed ; 2 flushing cisterns repaired or provided ; 4 new sink troughs provided ; 49 roofs and chimneys repaired ; 17 eaves, spouting, and down pipes repaired or provided ; 155 cottages wholly or partly cleansed, colour-washed, or repapered ; 47 yard pavings repaired or provided ; 58 floors, walls, ceilings and stairs repaired ; 2 keeping of animals so as to be a nuisance

removed ; 17 accumulations of refuse removed ; 8 nuisances from overcrowding abated ; 13 wells cleaned out and protected against surface pollution ; 3 pumps repaired or provided ; 1 new well sunk ; 55 improved light and ventilation of pantries and bedrooms ; 127 houses disinfected after infectious illness ; 7 schools disinfected ; 16 stoneware gullies provided in lieu of defective traps ; 5 waste pipes repaired, trapped, etc. ; 3 piggeries repaired or redrained ; 4 new closet pans and traps fixed ; total, 833. A few notices were outstanding at the close of the year.

INFECTIOUS DISEASES NOTIFICATION ACT, 1889.

One hundred and forty-eight cases of infectious disease have been notified during the year, viz. :—80 cases of scarlet fever, 4 enteric fever, 56 diphtheria, and 8 erysipelas.

Fifty-three cases were removed to hospital, viz. :—27 cases diphtheria, and 26 scarlet fever.

Disinfection was carried out at each cottage by means of Formalin fumigation.

Disinfectants were gratuitously supplied ; the water supply, drainage, and any other existing insanitary conditions enquired into, and any necessary steps taken.

FOOD AND DRUGS ACTS.

Eighty samples of milk were submitted for analysis, and all were reported to be genuine.

CANAL BOATS ACTS.

Forty-five canal boats were examined during the year, and 7 infringements were met with. No case of infectious disease occurred on any of the boats.

FACTORY AND WORKSHOPS ACT.

The workshops, including bakehouses, have been occasionally visited, and the register posted to date.

The half-yearly cleansing and whitewashing of bakehouses has been well maintained.

Lists of outworkers were received from the Rugby Urban District Council, and visits paid to the respective places.

There are 104 workshops on the register, including 21 bakehouses.

WATER SUPPLY.

Thirty-five samples of water were submitted for analysis, 25 of which were reported to be unfit for drinking purposes, 3 of doubtful quality, and 7 fit for drinking purposes.

Certificates under the Public Health Water Act, 1878, were granted for 55 new houses.

Six houses at Ryton-on-Dunsmore and 2 at Harboro' Magna were permitted to be occupied on sufferance pending a satisfactory analysis of the water supply.

SLAUGHTER-HOUSES AND KNACKERS' YARD.

The number of slaughter-houses in use is 14, one less than last year. Mr. Hartwell, of Bilton, having retired from the business. Visits at irregular intervals have been made, and very little difficulty has been experienced in maintaining them in good order.

Notices were issued every three months requiring the limewashing of walls, etc., and duly complied with.

The license for the knackers' yard at New Bilton was renewed in March last. The number of carcasses received and disposed of during the year was 447.

The major portion of the waste refuse is carted on to land in the occupation of Mr. Beasley, at Long Lawford, and has been the subject of repeated complaints. The safest and most satisfactory way of treating such refuse would be to burn it.

UNSOUND FOOD.

Four sheep carcasses and the offal, and a cow's liver weighing 18lbs., were voluntarily surrendered.

PETROLEUM ACTS.

Seven samples of oil were purchased and tested for flash point, and all were found to be over the standard of 73 per cent. F.

There are 23 persons licensed under the Acts whose premises have been inspected and found to be kept in accordance with your requirements.

DAIRIES, COWSHEDS, AND MILKSHOPS ORDER.

Visits have been paid to the dairies and cowsheds, and on the whole have been fairly well kept. The periodical limewashing of cow-houses has been observed.

Two persons registered themselves during the year.

The number of persons now registered is 91.

PUBLIC SCAVENGING, PARISH OF BILTON.

The number of loads of ashes and night soil collected during the year amounted to 1,109, 37 more loads than the previous year.

During the year the collection of night soil and ashes was contracted for for the villages of Newbold-on-Avon, Clifton-on-Dunsmore, Hillmorton, and Long Lawford, and the number of loads collected in the combined parishes amounted to 739.

HOUSING AND TOWN PLANNING ACT.

163 houses have been inspected during the year. In each case a detailed report was submitted to your Committee, and sent to the respective owners.

Five closing and six demolition orders were made in respect of properties at Long Lawford and Newbold-on-Avon. Two cottages at Newton were voluntarily closed, one of which has been pulled down, and the other is about to be demolished.

107 houses have been, or were being at the close of the year, repaired.

I am, Gentlemen,

Your obedient Servant,

LEONARD M. WITHERS,
Cert. Royal Sanitary Institute.

RURAL SANITARY DISTRICT OF RUGBY.

SUMMARY OF SANITARY WORK DONE IN THE INSPECTOR OF NUISANCES'
DEPARTMENT DURING THE YEAR 1913.

	Inspections and Observations made.	Notices served.		Nuisances Abated after Notice.
		Statu- tory.	In- formal.	
Dwelling Houses and Schools—				
Foul Conditions ...	148	89	71	155
Structural Defects ...	196	4	100	226
Overcrowding ...	16	2	5	8
Unfit for Habitation ...	5	5	—	—
Lodging Houses ...	—	—	—	—
Dairies and Milkshops ...	82	—	1	1
Cow Sheds ...				
Bakehouses and other Workshops ...	113	—	42	42
Slaughter-houses ...	251	—	56	56
Canal Boats ...	45	—	7	7
Ashpits and Privies ...	123	2	101	134
Deposits of Refuse and Manure ...	76	1	29	44
Water Closets ...	44	—	27	27
House Drainage—				
Defective Traps ...	17	—	6	16
No Disconnection ...	12	—	2	5
Other Faults ...	89	2	71	63
Water Supply... ...	56	14	7	17
Pigsties ...	10	—	2	3
Animals improperly kept ...	8	—	4	2
Offensive Trades ...	—	—	—	—
Smoke Nuisances ...	—	—	—	—
Other Nuisances ...	—	—	—	—
TOTALS ...	1291	119	531	806

	No.
Seizures of Unwholesome Food (voluntarily surrendered) ...	5
Samples of Food taken for Analysis ...	8
Ditto of Food found Adulterated ...	—
Ditto of Water taken for Analysis ...	35
Ditto of Water condemned as unfit for use ...	28

NOTE.—Where an inspection or notice embraces more than one defect, it may be enumerated separately as regards each such defect.

PRECAUTIONS AGAINST INFECTIOUS DISEASE.

Lots of Infected Bedding Stoved or Destroyed ...	—
Houses Disinfected after Infectious Disease ...	127
Schools ditto ditto ditto ...	7
Prosecutions for not Notifying Existence of Infectious Disease...	—
Convictions ditto ditto ditto ditto ...	—
Prosecutions for Exposure of Infected Persons or Things ...	—
Convictions ditto ditto ditto ditto ...	—

L. M. WITHERS, Inspector of Nuisances.

RUGBY RURAL DISTRICT.

Annual Report for 1913 on Factories, Workshops, Laundries, Workplaces, and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries) ...	1		
Workshops (including Workshop Laundries)	112	42	
Workplaces (other than Outworkers' premises included in Part 3 of this Report)			
Total	113	42	

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness				
Want of ventilation				
Overcrowding				
Want of drainage of floors				
Other Nuisances				
Sanitary accommodation {	insufficient			
	unsuitable or defective			
	not separate for sexes			
Notice to Limewash Bakehouses	42	42		
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouse (s. 101)				
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)				
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report)				
Total	42	42		

3.—HOME WORK.

Outworkers' Lists, Section 107.										Outwork in Unwholesome Premises, Section 108		Outwork in Infected Premises, Sections 109, 110	
Nature of Work	Lists received from Employers.						Prosecutions	Instances	Notices Served	Prosecutions	Instances	Orders made (Section 110)	Prosecutions (Secs. 109, 110)
	Sending twice in the year		Sending once in the year		Lists	Outworkers.							
	Lists	Outworkers. Con-tractors	Work-men.	Work-men.									
Wearing Apparel— (1) Making, &c. (2) Cleaning and washing... Household Linen Lace, Lace Curtains and Nets Curtains & Furniture Hangings Furniture and Upholstery ... Electro-plate File making Brass and Brass Articles ... Iron pulling Cables and Chains Anchors and Grapnels ... Cart Gear... Locks, Latches and Keys ... Umbrellas, &c. Artificial Flowers Nets, other than wire nets ... Tents Sticks Racquet and tennis balls ... Paper, etc., Boxes, Paper Bags Brush making Pea picking Feather sorting Carding, &c., of Buttons, &c.... Stuffed Toys Basket making Chocolates and sweetmeats ... Cosaques, Christmas Crackers, Christmas Stockings, &c. Textile Weaving	2		19										
Total	2		19										

RUGBY RURAL DISTRICT.—FACTORIES, &c.—(continued).

4.—REGISTERED WORKSHOPS

Workshops on the Register (s. 131) at the end of the year.								Number.		
Important classes of workshops, such as workshop bake-houses, may be enumerated here.	{	Factories	...	...	...	..	...	...	1
		Workshops	...	...	...	...	...	...	83
		Bakehouses	...	...	...	...	...	...	21
Total number of Workshops on the Register								105

5.—OTHER MATTERS.

Class.	Number.
Matters Notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act (s. 133)
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	<div> <div>Notified by H.M. Inspector...</div> <div>Reports (of action taken) sent to H.M. Inspector</div> </div>
Other
Underground Bakehouses (s. 101).—	
Certificates granted during the year
In use at end of the year

TABLE I.

RUGBY RURAL DISTRICT.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1913 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFER-ABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	Of Non-Residents registered in the District.	Of Residents not registered in the District.	Under 1 Year of age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	16,750	470	.....	28·0	165	9·8	.....	28	32	68	193	11·5
1909	16,910	395	.....	23·4	204	12·1	.....	31	35	89	235	13·9
1910	17,160	407	.....	23·7	187	10·9	.....	34	36	88	221	12·9
1911	17,400	407	413	23·7	173	9·9	2	30	39	94	201	11·6
1912	17,610	455	456	25·9	206	11·7	4	39	35	77	241	13·7
1913	17,820	498	503	28·2	206	11·5	1	45	53	105	250	14·0

* Rates in Columns 5, 7, and 13, calculated per 1,000 of estimated Population.

VITAL STATISTICS IN ENGLAND AND WALES (1913).

We are indebted to the Registrar-General for the following statement showing the birth-rates and death-rates and the rate of infantile mortality in England and Wales, and in certain parts of the country during the year 1913.

ENGLAND AND WALES.

Birth-rate, Death-rate, and Infantile Mortality during the Year 1913 (Provisional Figures).

Average Rate per 1,000 Living.

	Births.	Deaths.		Deaths under one year to 1,000 Births
		Crude.	Standardized*.	
England and Wales	23·9	13·7	13·4	109
96 Great Towns, including London	25·1	14·3	14·7	116
145 Smaller Towns	23·9	12·8	13·0	112
England and Wales, less the 241 towns	22·2	13·1	12·1	96
London	24·8	14·2	14·2	104

*The standardized death-rates (formerly called corrected death-rates) are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

TABLE II.—RUGBY RURAL DISTRICT.
CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1913.

NOTIFIABLE DISEASE.	Number of Cases notified.						Total Cases notified in each Locality.																	Total Cases removed to Hospital.										
	At all Ages.	At Ages.—Years.						Brinklow.	Newbold.	New Bilton.	Brandon.	Dunchurch.	Marton.	Stretton.	Hillmorton.	Brownsover.	Newton.	Wolston.	Bilton.	Clifton.	Harboro' Magna	Coombe Fields.	Long Lawford.		Thurlaston.	King's Newnham.	Bourton.	Willoughby.	Bretford.	Cawston.	Churchover.	Ryton.	Church Lawford	
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.																											65 and upwards.
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Group)	56	1	4	37	9	4	1	...	1	2	1	26	10	...	5	...	...	2	1	...	1	...	...	...	4	...	1	...	1	...	...	...	...	27
Erysipelas	8	...	...	...	1	4	3	...	...	4	...	...	...	...	1	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	26
Scarlet Fever	80	1	15	45	6	13	...	...	9	15	3	1	...	1	...	4	...	2	2	...	...	...	22	...	...	1	...	18	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	4	...	...	2	...	1	1	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	35	...	1	3	6	21	4	...	3	16	...	...	2	...	5	...	1	1	1	...	...	1	...	...	1	...	1	...	...	1	2	...	...	...
Other forms of Tuberculosis	9	...	3	4	...	2	...	...	3	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Totals	193	2	23	91	23	45	9	...	7	11	4	27	12	1	11	4	1	7	4	1	1	1	2	23	5	1	2	18	1	1	2	2	2	53

Isolation Hospitals: Rugby Joint Isolation Hospital Board's Isolation Hospital (at Harborough Magna, in Rugby R.D.);

TABLE III.
RUGBY RURAL DISTRICT.

CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1913.

CAUSES OF DEATH.	Nett Deaths at the subjoined Ages of "Residents" whether occurring within or without the District.									Total Deaths in Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	
All causes { Certified Uncertified	248 2	52 1	14	10	8	10	19	45	90 1	1
Enteric Fever	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Smallpox ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Measles	7	2	2	3	.....	.....	.....	.....	.....	.....
Scarlet Fever ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whooping Cough	2	2	.....	.....	.....	.....	.....	.....	.....	.....
Diphtheria and Croup... ..	4	.....	.....	1	3	.....	.....	.....	.....	1
Influenza	4	.....	.....	.....	.....	.....	1	2	1	.....
Erysipelas	1	.....	.....	.....	.....	.....	.....	1	.....	.....
Phthisis (Pulmonary Tuberculosis) ..	13	.....	.....	1	1	4	5	2	.....	.....
Tuberculous Meningitis	5	3	.....	.....	1	.....	.....	1	.....	.....
Other Tuberculous Diseases... ..	2	.....	.....	.....	1	.....	1	.....	.....	.....
Cancer, Malignant Disease	21	.....	.....	.....	.....	.....	3	8	10	.....
Rheumatic Fever ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meningitis	1	.....	1	.....	.....	.....	.....	.....	.....	.....
Organic Heart Disease	27	.....	.....	.....	.....	1	1	9	16	.....
Bronchitis	19	3	3	.....	.....	.....	.....	2	11	.....
Pneumonia (all forms)	18	3	4	.....	1	1	.....	3	6	.....
Other Diseases of Respiratory Organs	3	.....	1	.....	.....	.....	1	1	.....	.....
Diarrhœa and Enteritis	7	6	1	.....	.....	.....	.....	.....	.....	.....
Appendicitis and Typhlitis ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cirrhosis of Liver	2	.....	.....	.....	.....	.....	.....	.....	2	.....
Alcoholism ... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nephritis and Bright's Disease ..	4	.....	.....	.....	.....	.....	.....	2	2	.....
Puerperal Fever... ..	1	.....	.....	.....	.....	.....	1	.....	.....	.....
Other Accidents and Diseases of Pregnancy and Parturition	1	.....	.....	.....	.....	1	.....	.....	.....	.....
Congenital Debility and Malforma- tion, including Premature Birth ...	23	23	.....	.....	.....	.....	.....	.....	.....	.....
Violent Deaths excluding Suicide... ..	10	3	.....	1	1	1	.....	2	2	.....
Suicides	2	.....	.....	.....	.....	.....	1	1	.....	.....
Other Defined Diseases	70	7	1	4	.....	1	5	11	41	.....
Diseases, ill-defined or unknown ..	2	1	1	.....	.....	.....	.....	.....	.....	.....
All Causes	250	53	14	10	8	10	19	45	91	1

TABLE IV.
RUGBY RURAL DISTRICT.

INFANTILE MORTALITY DURING THE YEAR 1913. NETT DEATHS FROM
STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

Cause of Death.				Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 1 Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year
All causes	Certified	...	...	17	5	2	.....	24	7	10	6	5	52
	Uncertified	...	..	1	.....	.....	.....	1	.....	.....	.....	.....	1
{	Small-pox	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Chicken-pox	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Measles	...	...	.....	.....	.....	.....	.....	.....	1	1	.....	2
	Scarlet Fever	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Whooping Cough...	...	...	.....	.....	.....	.....	.....	1	1	.....	.....	2
	Diphtheria and Croup	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Erysipelas	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Tuberculous Meningitis ..	...	...	.....	.....	.....	.....	.....	1	.....	.....	2	3
{	Abdominal Tuberculosis	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Other Tuberculous Diseases	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Meningitis (not Tuberculous)	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Convulsions...	...	...	2	.....	.....	.....	2	.....	.....	.....	.....	2
{	Laryngitis	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Bronchitis	...	...	.....	.....	1	.....	1	.....	.....	2	.....	3
{	Pneumonia (all forms)	...	...	.....	.....	.....	.....	.....	.....	3	.....	.....	3
	Diarrhoea	...	...	.....	.....	.....	.....	.....	.....	.....	2	1	3
{	Enteritis	...	...	.....	1	.....	.....	1	1	1	.....	.....	3
	Gastritis	...	...	.....	1	.....	.....	1	.....	.....	.....	.....	1
{	Syphilis	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Rickets	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
{	Suffocation, overlying	...	...	1	.....	.....	.....	1	.....	.....	.....	.....	1
	Injury at Birth	...	...	2	.....	.....	.....	2	.....	.....	.....	.....	2
{	Atelectasis	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Congenital Malformations	...	...	2	.....	.....	.....	2	1	1	1	.....	5
{	Premature Birth	...	...	3	2	.....	.....	10	.....	.....	.....	.....	10
	Atrophy, Debility & Marasmus...	...	...	2	.....	1	.....	3	3	2	.....	.....	8
{	Other Causes	...	...	1	1	.....	.....	2	.....	1	.....	2	5
	All causes	...	...	18	5	2	.....	25	7	10	6	5	53

Nett Births in the Year:—Legitimate, 479 ; Illegitimate, 24.

Nett Deaths in the Year of:—Legitimate Infants, 48 ; Illegitimate Infants, 5.



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